



Technical University of Mombasa

Faculty of Applied and Health Sciences

DEPARTMENT OF MEDICAL SCIENCES

UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF MEDICAL
LABORATORY SCIENCES

BMLS12S (Mid entry)

AML 4420: BLOOD TRANSFUSION II

SEMESTER EXAMINATION

OCTOBER 2013 SERIES

2 HOURS

Instructions to candidates:

This paper consist of **TWO** sections A and B

Section A –Contains MCQS, any wrong response will be penalised. Answer **ALL** questions in **Section B**.

SECTION A – MCQs – (30marks)

1. HLA antigen resting many be used for all except the following:-
 - a) Paternity testing
 - b) Marching platelets
 - c) Matching organs for dozation
 - d) Classification of leukemia
 - e) Transfusion
2. ABO blood groups were discovered by:-
 - a) Mendelson
 - b) Morgan
 - c) Wiener
 - d) Landstainer
 - e) Coombs
3. In extreme emergency if the ABO a Rh type are unknown which of the following should be given
 - a) Grouping O, Rh positive blood
 - b) Group AB, Rh negative blood
 - c) Group O, Rh negative blood
 - d) Any blood types is Ok
 - e) A and B

4. Which of the following contains all the possible phenotypes that could be the result of parents who are type O and type A
 - a) Type A or type O only
 - b) Type A only
 - c) Type O only
 - d) All possible blood types
 - e) Type AB only

5. IgM antibodies produced against red blood cells generally
 - a) Cause severe hemolytic reactions
 - b) Can be identified by the AHG test
 - c) React best at room temperature
 - d) React best at 37°C
 - e) React best at 4°C

6. A refrigerator used to store whole blood must be able to maintain a temperature in the range of :-
 - a) 0-4°C
 - b) 2-4°C
 - c) 2-8°C
 - d) 1-6°C
 - e) 37°C

7. The Rh nomenclature which uses the letters DCE is found in which of the following genetic models
 - a) Landsteiner
 - b) Wiener
 - c) Fisher-Race
 - d) Race
 - e) Coombs

8. A false-negative reaction while performing the DAT technique may be the result of
 - a) Red cell /AHG tube is over centrifugal
 - b) Blood collected in tube containing silicon gel
 - c) Saline used for wash stored in glass or metal container
 - d) AHG addition delayed for 40 or more minutes
 - e) A and B

9. To detect the presence of blocking antibodies fixed on the red cells of a newborn infant
 - a) Use the indirect antiglobulin test
 - b) Use the direct antiglobulin test
 - c) Use antibody screening test
 - d) Use elution test
 - e) Use neutralization test

10. Gamma irradiation of cellular blood components is required in which of the following situations
- Prevent post transfusion purpura
 - Prevent Graft versus host disease
 - Prevent rejection of graft
 - Prevent edema
 - Prevent inflammation
11. Which of the following would not be detected by means of a major crossmatch.
- Misgrouping a group O patient as group A
 - Misgrouping a group A patient as group O
 - Misgrouping a group A donor as group O
 - Misgrouping a group B donor as a group O
 - None of the above
12. Unexpected positive reactions encountered during forward ABO typing may be due to:-
- A or B subgroups
 - Antigen depression due to leukemia
 - Hypogammaglobulinemia
 - Acquired B antigen due to intestinal cancer
 - A and B
13. Which of the following blood components will provide the best source of fibrinogen for a patient with hypofibrinemia
- Wholeblood
 - Fresh frozen plasma
 - Platelets
 - Cryoprecipitate
 - Red cells
14. The accepted blood interval between blood donation is:-
- 12 weeks
 - 8 weeks
 - 6 weeks
 - 1 year
 - 1 ½ years
15. Dr antigens are found in which of the following systems
- Kell system
 - HLA system
 - Duffy system
 - ABO system
 - Rh system

16. Rh antibodies include:-
- IgM
 - IgG
 - IgE
 - IgA
 - IgD
17. Patients with antibody to the following antigen and immune to Hepatitis B
- Core antigen
 - Surface antigen
 - E antigen
 - Delta antigen
 - A and B
18. Which of the following statements best describe Rh antibodies
- Naturally occurring IgM
 - Immune IgG
 - Immune IgM
 - Cold IgG
19. Which of the following is the proper storage temperature for frozen red cells
- 80°C
 - 20°C
 - 12°C
 - 4°C
 - 37°C
20. Which of the following is the proper storage temperature for whole blood
- 20°C
 - 12°C
 - 12°C
 - 4°C
 - 20°C
21. Pre-transfusion testing should include all the following except
- Patient a donor ABO & Rh typing
 - Screening patient & donor for antibodies
 - Screening patient a donor cells for unsuspected
 - Mixing patient serum with donor cells
 - Rh typing

22. The use of the direct antiglobulin test is indicated in all of the following except
- a) Transfusion reaction
 - b) Autoimmune hemolytic anamin
 - c) Hemolytic disease of the newborn
 - d) Refection of all antibodies in serum
 - e) B & C
23. Which of the following best describes a minor crossmatch
- a) Reaction of donor serum with recipient cells
 - b) Reaction of recipient cells with AHG
 - c) Reaction of donor cells with AHG
 - d) Reaction of donor cells with recipient semen
 - e) None of the above
24. All of the following are benefits of antilogous donation except
- a) Reduces exposure to infectious agents
 - b) Can be given quickly in an emergency
 - c) Reduces demand for homologous blood
 - d) Eliminates sensitization to cellular blood components
 - e) A and C
25. Rh immune globulin therapy in postpartum women provider
- a) Longterm protection
 - b) Antibody blocking
 - c) Passive protection
 - d) Active protection
 - e) A and B
26. Most common bacteria pathogens in transfused blood include
- a) Yersiin entholoritica
 - b) Vibrio chosera
 - c) TB
 - d) Echerichia coli
 - e) B and C
27. The appropriate age for donation of blood is
- a) 17 a above
 - b) 17 – 50 years
 - c) 17 – 65 years
 - d) 20 a above
 - e) 10 – 60 years

28. Donor should be restricted from donating blood due to the following except

- a) HIV positive
- b) 16 years of age
- c) Pregnant
- d) 17 – 60 years of age
- e) Receive dura matter

29. Complete antibody include

- a) IgM
- b) IgG
- c) IgD
- d) IgE
- e) IgM & IgD

30. Incomplete antibody include

- a) IgG
- b) IgD
- c) IgE
- d) IgG
- e) IgA

SECTION B

1. Discuss cross match

(20marks)

2. Describe coombs test

(20marks)